

REMARKS

Consideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

A. Status of the Claims and Explanation of Amendments

Claims 1-23 were pending (with claims 7-16 and 23 being withdrawn from substantive consideration). By this paper, withdrawn claims 7-16 and 23 are cancelled without prejudice or disclaimer, claims 1-4, 6, and 17-22 are amended, and claims 24-31 are added.

Claim 1 is amended to recite “forming a mask or a reflector in a predetermined material on said component” instead of “forming a mask or a reflector for said component in a predetermined material.” Claim 2 is amended to clarify that the method “further comprises” metallization “after laser radiation exposure.” Claims 3 and 4 are amended to recite “texturing” instead of “granulating.” Claim 6 is amended to replace the word “or” with the word “and” in the recite Markush group.

Claim 17 is amended for further clarity and is directed to a method “for reducing parasitic light rays in motor vehicle headlamps adapted to emit a predetermined light beam.” The providing step is amended to positively recite “a mask of a motor vehicle headlamp, the mask defining at least one orifice for holding a headlamp lens,” instead of “a component.” Similarly, the word “component” was changed to “mask” in dependent claims 18-20.

Claim 21 is amended to depend from claim 20, instead of claim 1.

Claim 22 is amended to change “that” to “than.”

New claims 24-31 are added. Claims 24 and 25 depend from claim 1 and specify that what is formed is a “a headlamp mask defining at least one orifice for holding a lens” (claim 24), or is a “a headlamp reflector configured and adapted to focus light from a light source into a light beam” (claim 25). Claim 26, dependent from claim 25, further recites “the forming step comprises forming the reflector with a substantially elliptical inner face and metallizing the inner face to provide an at least partially reflective surface.” Claim 27, dependent from claim 26, further recites “said step of exposure to laser radiation provides at least one non-metallized, non-reflective zone on the inner face.”

New claim 28 is independent and is directed to “[a] method of providing a reflective body having at least one pre-selected matt zone” and comprises three steps: (1) “injection molding a transparent thermoplastic material into a predetermined shape having a surface,” (2) “exposing to laser radiation a portion of the surface to alter the texture of the surface and define the pre-selected matt zone” and (3) “applying a metal layer onto the surface to render the surface reflective except that the pre-selected matt zone is not reflective.” Claim 29, dependent from claim 28, specifies that “the injection molding step comprises injection molding a reflector.” Claim 30, dependent from claim 29, recites that “the reflector is a dipped/full beam headlamp reflector.” Claim 31, dependent from claim 28, specifies that “the applying a metal layer step comprises completely metallizing the surface with a layer of aluminum.”

Support for these amendments is found throughout the specification as originally filed, including for example at pages 6-11 and the referenced figures.

No new matter will be added to this application by entry of these amendments.

A provisional non-statutory obviousness-type double patenting rejection of claims 1-2, 5-6 and 17-20 was made over claims 1-2, 4-5 and un-entered claims 11-14 of copending application 10/729,305 (“the ’305 application”). [8/28/06 Office Action at pp. 4-6]. Applicants note that the filing dates of these applications are the same:

	<u>Appl. 10/729,184</u>	<u>Appl. 10/729,305</u>
U.S. Filing Date:	12-04-2003	12-04-2003
Priority Application:	FR 02 15 673	FR 02 15 674
Priority Date:	12-05-2002	12-05-2002

Accordingly, the ’305 application is **not** prior art to the present application and cannot properly be cited in a double patenting rejection. Moreover, there are no claims in this application yet found to be allowable, and the ’305 application was abandoned. This rejection is respectfully requested to be withdrawn, or at a minimum held in abeyance until allowable subject matter is found in this application.

The office action raised a number of Section 112 rejections:

- Claims 3-4 were rejected for an alleged lack of written description under Section 112, and the specification was objected to because of the words “granulating” or “granulations” allegedly are not disclosed in the originally filed specification. [8/28/06 Office Action at p. 2].

- Claims 1-6 and 21-22 also were rejected pursuant to Section 112 as allegedly being indefinite. [8/28/06 Office Action at pp. 2-3].
- Claims 2-4 and 18 also were rejected pursuant to Section 112 because the specification allegedly lacks an enabling disclosure for the claimed subject matter. [8/28/06 Office Action at p. 4].

In Section B *infra*, we explain that each of these rejections is now moot, and show that the pending claims fully comply with the requirements of Section 112.

The five rejections on the merits stated in the office action were:

- Claims 1-2, 5-6, and 17-20 were rejected pursuant to 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,817,243 to Shaffer et al. (“Shaffer”) [8/28/06 Office Action at pp. 6-7; 12/6/05 Office Action at pp. 5-6].
- Claims 1, 6 and 17-18 were rejected pursuant to 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,614,338 to Pyburn et al. (“Pyburn”). [8/28/06 Office Action at pp. 7-8; 12/6/05 Office Action at p. 6].
- Claims 1-2, 5-6 and 17-20 were rejected pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,911,317 to Tsai (“Tsai”) in view of Pyburn. [8/28/06 Office Action at pp. 8; 12/10/05 Office Action at pp. 6-7].
- Claims 3-4 were rejected pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over Shaffer in view of Great Britain Patent No. 2,244,934 to Pope (“Pope”) or U.S. Patent Publication 2004/0145289 to Ouderkirk et al. (“Ouderkirk”). [8/28/06 Office Action at pp. 9-10; 12/10/05 Office Action at pp. 7-8].
- Claims 3-4 were rejected pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over Japanese Patent Publication No. 2000-176659 to Shizuku Hideji (“Hideji”) or Tsai in view of Pyburn and U.S. Patent Publication No. 2001/0019013 to Weber et al. (“Weber”). [8/28/06 Office Action at pp. 10-11; 12/10/05 Office Action at p. 8-9].

Applicants note with appreciation the withdrawal of the prior rejection of claims 1-2, 5-6, and 17-20 as allegedly being anticipated by Japanese Patent Publication No. 2000-176659 to Shizuku Hideji (“Hideji”) [12/10/05 Office Action at p. 7; 8/28/06 Office Action at pp. 8-9].

In Sections C-E *infra*, we explain that each of remaining rejections on the merits is moot or traversed, and that the pending claims are patentable over the cited references.

Applicants further note that there were no substantive rejections of pending claims 21-22. Acknowledgement of the patentability of these claims over the prior art is expressly requested or, alternatively, a rejection of the merits should be set forth.

B. Section 112 Rejections Should Be Withdrawn

As to paragraphs 1 and 2 of the office action, an objection is made to the change in the specification and to claims 3 and 4 from the word “embosses” to the word “granulations.” As mentioned in our prior response (at page 13), the French priority document uses the word “grainage.” This word was originally translated as “embosses” when this application was filed with the U.S. Patent & Trademark Office.

The originally-filed application clearly describes texturing. Paragraph [0088] describes “texturing” of a thermoplastic mask:

“The thermoplastic zones corresponding to the surfaces 38 are first *embossed* [*mis-translation of French word “grainage”*] or *textured* by exposure to laser radiation of the YAG type. A CO₂ laser or a laser of the excimer type may also be used.”

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Likewise, paragraph [0034] describes modification of the texture (i.e., texturing).

To alleviate the concern raised in the office action, claims 3 and 4 are amended to delete the word “granulating,” and to insert the word “texturing” in its place. The specification is amended similarly.

Respectfully, Applicants assert that the specification properly describes the subject matter of pending claims 3 and 4, and conveys to a person of ordinary skill in the art at the relevant time that Applicants had possession of the invention(s) of these claims. Reconsideration of the rejection of claims 3-4 and the objection to the specification is respectfully requested.

With regard to the alleged indefiniteness of claims 1-6, 21 and 22 raised in paragraph 2 of the office action, the above-described amendments are believed to render moot the concerns raised in the office action. Withdrawal of this rejection is respectfully requested.

With regard to lack of enablement of pending claims 2-4 and 18 alleged in paragraph 5 of the office action, the explanation of the rejection was as follows:

“While applicant [sic.] has changed the embossing of the specification to granulating, or the like, the problem as discussed in section 4 of the 12/6/2005 rejection has not been corrected because the teachings that say the plastic is not affected by the laser are not changed by whether one is embossing, i.e. using the rate laser to four raised portions or surface texturing, or whether one is using the laser to cause granulation, i.e. powdering of the substrate surface, as teachings that the laser cannot/do not affect the surface, as was previously set forth, are still in issue that was not resolved.”

Applicants frankly admit to having difficulty understanding this explanation. If the rejection is maintained, a succinct explanation is requested of what specific claim element in claims 2-4 and 18 allegedly is not enabled by the disclosure of the originally filed application.

The December 6, 2005 office action had complained that claims 2-4 and 18 were not enabled by the specification, because specification allegedly failed to disclose simultaneous metallization and laser radiation. [12/6/05 Office Action at p. 3]. The prior amendment altered claim 2 to clarify that the metallization step occurs “before or after laser radiation exposure.” Claim 2 now is amended to specify that metallization occurs after laser radiation exposure.

In this regard, paragraph [0015] of the originally filed specification describes molding of a component from plastic (which may or may not be metallized), followed by exposure to a laser:

“The starting point is thus a component formed, for example by moulding, in a material such as a plastics material which may or may not be metallized. Laser technology then makes it possible to carry out either selective ablation on said component when the latter is metallized or exposure directly on the plastics material.”

If the plastic component is metallized, the laser exposure may be used to selectively ablate portions of the metal surface within altering the plastic material:

“The ablation of a particular metal surface does not affect the plastics material and thus allows a zone of plastics material to appear. This zone corresponds to an optical function such as a screen.” [Specification at ¶0016].

As would be understood by a person of ordinary skill in the art, by controlling the operating conditions of the laser, it is possible to ablate the metal layer. In this regard, paragraphs [0058]-[0059] describe ablation of an aluminum layer with a YAG laser operating at a wavelength of 1064 nm, a rate of displacement of 900 mm/s, a power of 20 W and a frequency of 4500 Hz.

If the plastic component is not metallized, the laser exposure may be used to texture the plastic itself:

“The laser exposure directly on the plastics material makes it possible for example to emboss part of the plastic surface, this part becoming less reflective after metallization.”
[Specification at ¶0017].

It should be self evident that direct exposure of laser radiation onto a plastic (i.e., without an intervening metal layer) may alter the surface and cause texturing.

The present office action seems to question whether it is possible to perform laser ablation of the metal layer without affecting the underlying plastic material. However, the claims do not require that the underlying plastic material remain absolutely unchanged by the laser ablation of the metal layer:

2. “The method according to claim 1, further comprising metallizing said component after laser radiation exposure.”
3. “The method according to claim 1, wherein said predetermined material is a plastics material and said step of exposure to laser radiation comprises texturing said surface of plastics material.”
4. “The method according to claim 3, wherein said texturing step is followed by a step of metallizing said component.”

18. “The method according to claim 17, wherein surface of said component is textured by exposure to laser radiation.”

In sum, Applicants respectfully submit that each of claims 2-4 and 18 fully comply with Section 112 and are properly enabled by the originally filed specification.

Reconsideration and withdrawal of the Section 112 rejections is respectfully requested.

C. Claims 1-6 are Patentably Distinct from the Cited References

The rejections on the merits are traversed since the five cited-references (Shaffer, Pyburn, Tsai, Hideji, and Weber) taken alone or in combination fail to teach disclose or suggest all of the features of Applicants’ claims.

Applicants’ claim 1 recites:

“1. A method of creating an optical function on a component of a motor vehicle indicating or lighting device configured to emit a light beam, comprising:

forming a mask or a reflector in a predetermined material on said component; and

exposing at least one surface of said component to laser radiation.”

1. ***Claims 1-2 and 5-6:*** Shaffer Cannot Anticipate Applicants’ Claim 1-2 and 5-6 Because Shaffer Fails To Teach, Disclose or Suggest “Forming A Mask Or A Reflector In A Pre-determined Material On Said Component” As Recited in Applicants’ Claim 1

Shaffer is directed to a method of applying decorative contrast designs to automotive and motorcycle parts (e.g., chrome plated motorcycle gas cap, plastic lens for motorcycle lamp, chrome coated glass mirror) using lasers. Specifically, a laser (1) is used to etch “permanent decorative contrast design 12” into a part (11). [Shaffer, Col. 1,

lines 36-45 and Col. 2, lines 47-57]. The parts may be metal plated parts, and in that instance the laser is used to ablate portions of the metal. [Shaffer, Col. 6, line 44 – Col. 7, line 5].

The parts also may plastic, in which case the laser is used to render opaque portions of the formerly transparent plastic. [Shaffer, Col. 7, lines 24-40]. There is no discussion in Shaffer of subsequent metallization of these plastic parts, however.

The office action asserts that Applicants' claims do not require any specific optical effect, and therefore Shaffer's laser etching allegedly reads on Applicants' claim 1. [8/28/06 Office Action at p. 6].

Shaffer does not mention or refer to "a mask" or "a reflector." This is not disputed. The office action argues, nonetheless, that Shaffer's laser-etched designs will have "*masking* effects." [8/28/06 Office Action at p. 7 (emphasis added)].

It is not clear what the office action means by "masking effects."

Applicants note, however, that Shaffer's laser etching is described as *not altering* the light transmission characteristics of the plastic parts that have been etched:

"When the part material is plastic (such as for a clear or colored light lens or globe), the laser etch may desirably leave etched areas opaque to enhance the overall decorative contrast of the design, both when light is and is not directed through the part. Further, the laser may be set to affect the plastic between the front and back surfaces of the part. In other words the beam may be focused to a point within the plastic part. In this way, the image is formed by affecting, such as by discoloring, portions of the plastic within the part. This is highly desirable, since it has been discovered that when the image is transferred to a spot within the part, *the*

plastic globe or lens so marked will not adversely affect transmission of a light beam through the plastic globe or lens.” [Shaffer, Col. 5, lines 1-14 (emphasis added)].

Whatever effect is being achieved by Shaffer’s laser etching, it does not transform the plastic part into a mask or a reflector.

In any case, Applicants’ claim 1 recites *first* “forming a mask or a reflector” and *second* “exposing at least one surface of said component to laser radiation.” Thus, the office action has failed to identify with Shaffer any teaching, disclosure of suggest of the forming step prior to the exposing step as recited in Applicants’ claim 1.

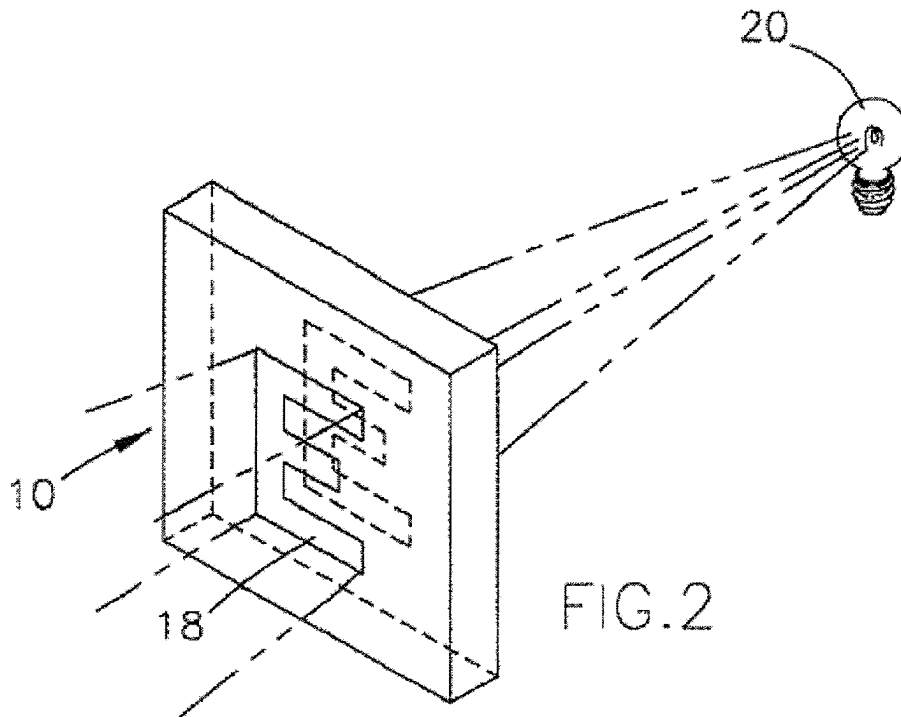
Accordingly, Applicants’ independent claim 1 is respectfully asserted to be patentably distinct from Shaffer for at least this reason. Independent claim 28 and dependent claims 2, 5-6, 22, 24-27 and 29-31 also are patentably distinct for at least similar reasons.

2. ***Claims 1 and 6: Pyburn Cannot Anticipate Applicants’ Claims 1 and 6 Because Pyburn Fails To Teach, Disclose or Suggest “Forming A Mask Or A Reflector In A Pre-determined Material On Said Component” As Recited in Applicants’ Claim 1***

Pyburn is directed to a process for manufacturing backlit displays utilizing *plastics*¹ and laser energy. In Pyburn, plastic components (e.g., buttons) are manufactured for use in illuminated graphic displays. [Pyburn, Col. 3, lines 61-66].

¹ Pyburn is utterly silent as to the use of metal parts or the use of any metallization step as apparently recognized by the office action. *Compare* Applicants’ pending claims 2, 4-5, 19-20 and 26-27.

Pyburn's Figure 2 shows a perspective view of the front side of a button for use in a backlit display in accordance with Pyburn's first embodiment. [Pyburn, Col. 3, lines 51-53]:



A button (10) is provided with a graphic image (18), such that light from a source (20) creates a visible image of the graphic. The button is formed from a translucent or transparent material. [Pyburn, Col. 4, lines 19-20]. Pyburn's plastic button (10) includes a dispersion of pigment. [Pyburn, Col. 4, lines 20-32]. Upon exposure to laser energy, the button is locally overheated and becomes substantially optically opaque in predetermined areas. [Pyburn, Col. 4, lines 32-35]. This is said to provide graphic images (18) on the button (10). [Pyburn, Col. 4, lines 46-50; Figure 2].

The disclosure of Pyburn is expressly limited to the manufacture of components of the type used in an illuminated graphic display. [Pyburn, Col. 2, lines 15-18, Col. 4, lines 61-64 and Col. 5, lines 23-25]. Pyburn fails to teach, disclose or suggest “forming a mask or a reflector in a pre-determined material on said component” as recited in Applicants’ claim 1.

The office action asserts that “the backlighting patterning [sic] form” of Pyburn “can be considered a type of *masking*.” [8/28/06 Office Action at p. 7 (emphasis added)]. By backlighting patterning, we understand the Office Action to be referring to the graphic image provided on the button after exposure to laser energy.

However, Applicants’ claim 1 recites *first* “forming a mask or a reflector” and *second* “exposing at least one surface of said component to laser radiation.” Thus, the office action has failed to identify, within Pyburn, any teaching, disclosure or suggest of the forming step prior to the exposing step as recited in Applicants’ claim 1.

Accordingly, Applicants’ independent claim 1 is respectfully asserted to be patentably distinct from Pyburn for at least this reason. Independent claim 28 and dependent claims 6, 22, 24-27 and 29-31 also are patentably distinct for at least similar reasons.

3. ***Claims 1-2 and 5-6:*** Tsai in view of Pyburn Cannot Render Unpatentable Applicants' Claims 1-2 and 5-6 Because These References Fail To Teach, Disclose or Suggest "Forming A Mask Or A Reflector In A Pre-determined Material On Said Component" As Recited in Applicants' Claim 1

Tsai is directed to light permeable metal plated rubber key. A light permeable metal plated key is formed from a base part (1) made of silicone rubber, which is sprayed or printed with a light permeable ink (2), applied with a protective layer (3), plated with a metal film (4), and laser engraved to remove portions of the metal film (4) and reveal a letter (5), and then applied with a second protective layer (6) as illustrated in the Figure 1 process diagram:

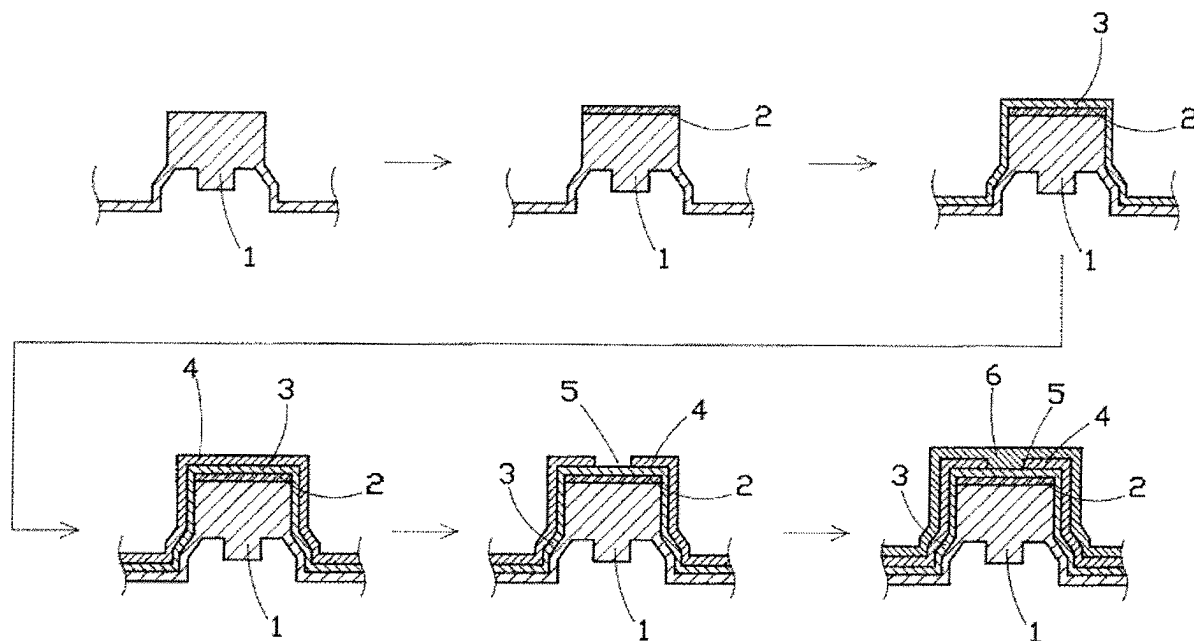


FIG. 1

[See also Tsai, Col. 2, lines 9-29].

The office action admits that “Tsai does not mention the use of their key, i.e. button, in any kind of motor vehicle” [8/28/06 Office Action at p. 8]. Pyburn is cited in an attempt to alleviate this deficiency.

Tsai does not mention or refer to “a mask” or “a reflector.” Thus, Tsai – like Pyburn – fails to teach, disclose or suggest “forming a mask or a reflector in a predetermined material on said component” as recited in Applicants’ claim 1.

Accordingly, Applicants’ independent claim 1 is respectfully asserted to be patentably distinct from Tsai in view of Pyburn for at least this reason. Independent claim 28 and dependent claim 2, 5-6, 22, 24-27 and 29-31 also are patentably distinct for at least similar reasons.

4. *Claims 3-4*

Several additional references (Pope, Ouderkirk, Hideji, and Weber) were cited in the office action as allegedly disclosing features recited in dependent claims 3 and 4.

Without commenting on those assertions, we note that each of these secondary or tertiary references also fails to teach, disclose or suggest “forming a mask or a reflector for said component in a predetermined material” as recited in Applicants’ claim 1:

- Pope is directed to a dart flight, Ouederkirk is directed to phosphor based light sources;

- Hideji is directed to transparent material processing for button and name plates involving thermo-compression bonding of metallic foil to a transparent base; and
- Weber is directed to electrical switch assembly for a motor vehicle with separate icon display.

Further, Applicants further submit that each of these references constitutes non-analogous art, which may not be cited against the patent claims in a Section 103 rejection. *See* MPEP § 2141.01(a). For example, we fail to see how a dart flight (as in Pope) could be fairly described to be within the present inventors' field of endeavor, or reasonably pertinent to the particular problem with which the inventor was involved. *See In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992).

Further still, Ouderkirk is not prior art under any provision of 35 U.S.C. § 102. Ouderkirk was published July 29, 2004 on an application filed December 2, 2003. Ouderkirk claims priority to provisional patent applications filed January 27, 2003. The present application has a U.S. filing date of December 4, 2003 and claims priority pursuant to 35 U.S.C. § 119 to a French patent application filed December 5, 2002, which antedates Ouderkirk.

Withdrawal of the Section 103 rejections of claims 3-4 is requested.

D. Claims 17-20 are Patentably Distinct from Shaffer, Pyburn and Tsai in view of Pyburn

The rejections on the merits of claims 17-20 are traversed since the three cited-references (Shaffer, Pyburn, Tsai) taken alone or in combination fail to teach

disclose or suggest all of the features of Applicants' claims. None of these references is directed to the manufacture of a headlamp mask as recited in Applicants' claim 17.

Applicants' claim 17 recites:

“17. A method of reducing parasitic light rays in motor vehicle headlamps adapted to emit a predetermined light beam, the method comprising:

providing a mask of a motor vehicle headlamp, the mask defining at least one orifice for holding a headlamp lens; and
exposing at least one surface of said mask to laser radiation to create an optical function on said mask.”

Shaffer uses a laser to etch permanent decorative contrast designs (12) into automotive and motorcycle parts using lasers. None of these parts is a mask for a headlamp. See *supra* at page 18.

Pyburn is directed to manufacturing backlit displays (e.g., buttons). See *supra* at page 20. Pyburn never mentions masks for a headlamp, or headlamps for that matter.

Tsai is directed to manufacturing metal plated rubber keys. See *supra* at page 22. Like Shaffer and Pyburn, Tsai never mentions headlamps or masks. Indeed, the office action admits that “Tsai does not mention the use of their key, i.e., button, in any kind of motor vehicle” [8/28/06 Office Action at p. 8].

Accordingly, each of the three cited references (Shaffer, Pyburn and Tsai) fails to teach, disclose or suggest “providing a mask of a motor vehicle headlamp, the mask defining at least one orifice for holding a headlamp lens” as recited in Applicants' claim 17. Applicants' independent claim 17 is respectfully asserted to be in condition for

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allowance for at least this reason. Dependent claims 18-21 also are patentably distinct for at least similar reasons.

Applicants have chosen in the interest of expediting prosecution of this patent application to distinguish the cited documents from the pending claims as set forth above. These statements should not be regarded in any way as admissions that the cited documents are, in fact, prior art. Finally, Applicants have not specifically addressed the rejections of the dependent claims. Applicants respectfully submit that the independent claims, from which they depend, are in condition for allowance as set forth above. Accordingly, the dependent claims also are in condition for allowance. Applicants, however, reserve the right to address such rejections of the dependent claims in the future as appropriate.


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CONCLUSION

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 1948-4826.

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